



March 19, 2019

VIA ECFS

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Ex Parte Presentation: *Updating the Intercarrier Compensation Regime to Eliminate Access Arbitrage, WC Docket No. 18-155; 8YY Access Charge Reform, WC Docket No. 18-156; Connect America Fund, Developing a Unified Intercarrier Compensation Regime, WC Docket No. 10-90 & CC Docket No. 01-92; Reliability and Continuity of Communications Networks, Including Broadband Technology, PS Docket No. 11-60; Advanced Methods to Target and Eliminate Unlawful Robocalls, CG Docket No. 17-59; Call Authentication Trust Anchor, WC Docket No. 17-97*

Dear Ms. Dortch:

The undersigned (the “Carrier Coalition”) respectfully submit this *ex parte* letter in support of two proposals made by CenturyLink, Inc. (“CenturyLink”) in certain proceedings listed above:

- First, the Commission should adopt a rule confirming that all carriers have the duty to either (a) permit any requesting carrier to obtain direct network interconnection for the termination of access traffic or (b) bear responsibility for the costs of receiving traffic via indirect interconnection, if the carrier receiving a request for direct interconnection prefers to receive traffic indirectly (the “Direct Connect Rule”).¹
- Second, the Commission should grant CenturyLink’s May 11, 2018 Petition for Declaratory Ruling pending in WC Docket No. 10-90 and CC Docket No. 01-92, to make clear that under the Commission’s VoIP Symmetry Rule, 47 C.F.R. § 51.913(b), end office local switching access reciprocal compensation charges apply to traffic that originates from or terminates to an “over-the-top” VoIP end-user.²

As discussed below, adoption of these proposals is necessary to preserve the significant benefits realized (a) from investment into the deployment of advanced IP-based networks and services, (b) to further encourage such investment, and (c) to protect and promote competition during the transition to advanced IP networks.

I. Introduction

The Carrier Coalition is comprised of a diverse group of entities that directly or indirectly provide vital and innovative IP-based services to both end-user and carrier customers. The Carrier Coalition’s carrier members have independently made substantial network investments to deliver advanced IP-based services to their customers. These investments provide customers with many important benefits, including increased access to more diverse and advanced fiber optic services, better customer service and quality assurance, increased network reliability and redundant routing, and improved routing integrity, and also facilitate the industry’s overall transition to an all-IP environment.

To both preserve the benefits realized through these IP-based services and promote further investments in IP-networks, the Commission must ensure its decisions and reforms continue to promote efficient interconnection and routing and do not upset expectations for carriers that have already made significant investments into the deployment of advanced IP-based networks. The Carrier Coalition submits that adoption of the two proposals listed above are key steps needed to achieve these important objectives.

¹ See Letter from Timothy M. Boucher, CenturyLink, to Marlene H. Dortch, FCC, CC Docket Nos. 01-92 & 96-98, WC Docket Nos. 18-155, 10-90 & 07-135 (filed May 21, 2018) (“CenturyLink May 21, 2018 *Ex Parte*”).

² Petition of CenturyLink for a Declaratory Ruling, WC Docket No. 10-90, CC Docket No. 01-92 (filed May 11, 2018) (“CenturyLink’s Petition for Declaratory Ruling” or “CenturyLink’s Petition”).

II. Direct Connect Rule

The Carrier Coalition emphatically supports the Commission's adoption of the Direct Connect Rule proposed by CenturyLink. As noted, this rule would confirm that a carrier has a duty to either (a) permit requesting carriers to directly interconnect their networks for the termination of access traffic or (b) bear responsibility for the costs of receiving such traffic indirectly, if the carrier receiving a request for direct interconnection prefers to receive the traffic indirectly. As CenturyLink notes, this rule would mean that "[any] carrier that refused a request for direct interconnection on a bill-and-keep basis would be required to bear the financial responsibility for any intermediate services associated with the indirect interconnection."³

The Carrier Coalition agrees that this proposal presents a balanced, common-sense approach for eliminating arbitrage schemes associated with terminating traffic to the end users of other carriers. As the record reflects, the opportunity for regulatory arbitrage arises when a terminating carrier (1) requires that all or certain types of terminating traffic be routed through its intermediate carrier partner and (2) does not offer direct connects to other carriers seeking to deliver such traffic to the terminating carrier's end users.⁴

Because a terminating carrier has a "bottleneck monopol[y] over access to each individual end user,"⁵ a terminating carrier's intermediate carrier partner, by extension, also has a bottleneck monopoly where direct connects are not offered. The existence of this monopoly power is evidenced by the excessive rates that certain intermediate carrier partners have sought to assess, which are typically far higher on a per Minute of Use ("MOU") basis than the cost to send terminating traffic over direct connects to a terminating carrier. By adopting the Direct Connect Rule, the Commission would effectively eliminate the incentive for terminating carriers to exert such market power over their bottleneck monopoly and engage in such regulatory arbitrage/exploitation (similar to what the Commission did in 2001)⁶ by placing financial responsibility on those terminating carriers that choose to deny a direct connect request for all or certain types of traffic.

³ Letter from Joseph C. Cavender, CenturyLink, to Marlene H. Dortch, FCC, WC Docket Nos. 18-155 & 18-156, Ex Parte, at 2 (filed Dec. 7, 2018).

⁴ See Comments of Peerless Network, Inc. and Affinity Network, Inc. d/b/a ANI Networks, WC Docket No. 18-155 (filed July 20, 2018).

⁵ *Access Charge Reform, Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, Seventh Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 9923, ¶ 30 (2001) (further explaining that "once an end user decides to take service from a particular LEC, that LEC controls an essential component of the system that provides interexchange calls, and it becomes the bottleneck for IXC's wishing to complete calls to, or carry calls from, that end user.").

⁶ In 2001, the Commission required CLECs to benchmark their switched access rates to those of the competing ILEC to prevent the exploitation of such monopoly market power in the rates CLECs assessed for tariffed switched access services. See *id.*

In addition to addressing this form of terminating access arbitrage, adoption of the Direct Connect Rule would promote several important policy objectives:

First, the Direct Connect Rule will promote efficient interconnection and routing of terminating traffic, by ensuring the costs of interconnection inefficiencies are borne by the carrier that imposes them. Under CenturyLink’s proposal, the carrier requesting direct interconnection would pay for the cost of that arrangement where provided. However, terminating carriers that decline direct connect requests would be required to bear the cost associated with that denial – *i.e.*, the costs associated with receiving traffic indirectly. Notably, this proposal does not reflect a new or novel networking construct, as most incumbent LECs, for example, already offer direct connects to their end offices via tariffs or interconnection agreements.⁷ Moreover, CLECs are required to permit direct interconnection to their end offices.⁸

Second, the Direct Connect Rule will promote network redundancy that, in turn, decreases risk and exposure to network outages and service disruptions. Examinations of recent network outages have identified the critical necessity of having redundant switching pathways and diverse routing,⁹ especially to minimize network outages with backhaul providers and wireless carriers

⁷ See, e.g., National Exchange Carrier Association, Inc. (“NECA”), Tariff F.C.C. No. 5, at § 5.2.1 9th Revised Page 5-5 & § 6.1.3, 12th Revised Page 6-8 (referencing “Direct Trunked Transport”); 47 C.F.R. § 69.112 (explaining how direct-trunked transport rates are assessed and the telephone companies that must provide direct-trunked transport); see also Comments of Peerless Network, Inc., West Telecom Services, LLC, Peninsula Fiber Network, LLC, Alpha Connect, LLC, Rural Telephone Service Company, Inc. d/b/a Nex-Tech, Nex-Tech, LLC, and Tennessee Independent Telecommunications Group, LLC d/b/a Iris Networks, WC Docket No. 10-90, CC Docket No. 01-92, at 12 & n.25 (filed Oct. 26, 2017).

⁸ *Access Charge Reform, PrairieWave Telecommunications, Inc. Petition for Waiver of Sections 61.26(b) and (c) or in the Alternative, Section 61.26(a)(6) of the Commission’s Rules*, CC Docket No. 96-262, CC Docket No. 96-262, Order, 23 FCC Rcd 2556, ¶ 27 (2008) (A CLEC must “permit an IXC to install direct trunking from the IXC’s point of presence to the competitive LEC’s end office, thereby bypassing any tandem function. So long as an IXC may elect to direct trunk to the competitive LEC end offices, and thereby avoid the tandem switching function and associated charges, there should be limited incentive for competitive LECs to route calls unnecessarily through multiple switches”).

⁹ *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, EB Docket No. 06-119, Notice of Proposed Rulemaking, 21 FCC Rcd 7320, App. B at 14 (2006) (discussing the need for “redundant pathways” because the “switches that failed, especially the tandems, had widespread effects on a broad variety of communications in and out of the Katrina region.”); see also Level 3 Nationwide Outage October 4, 2016, Public Safety and Homeland Security Bureau, Cyber Security and Communications Reliability Division Staff Report (Mar. 13, 2018), available at https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0313/DOC-349661A1.pdf.

during and following disasters.¹⁰ Network redundancy and diversity is significantly limited when terminating carriers exploit their bottleneck monopoly by denying direct connects and requiring that terminating traffic be funneled through an exclusive intermediate carrier partner. Decreased redundancy also exacerbates many other risks, such as increased instances of post-dial delays, non-completions, and dropped calls. By ensuring that multiple routing options are available where efficient to deploy, the Direct Connect Rule will serve to reduce the risk of such significant disruptions of communications services, especially those services used by first responders and emergency personnel.

Third, the Direct Connect Rule will similarly enhance competition in the market for interconnection and routing services, as the rule will allow for multiple routing options to be made available where justified by traffic volumes. By ensuring direct connects are available as a means to avoid inefficient routing arrangements, the rates offered to terminate traffic will inevitably be forced downward to competitive levels. Indeed, if an intermediate carrier attempts to charge excessive rates to route traffic to a particular terminating carrier, then carriers seeking to terminate traffic would either seek direct connects themselves or simply use a different intermediate carrier that offers more competitive prices. Absent Commission intervention, however, terminating carriers that decline to offer direct interconnection (for all or certain types of traffic) will continue to allow their exclusive intermediate carrier partners to charge excessive rates.

Fourth, the Direct Connect Rule will increase incentives for, and remove barriers to, network investment and the IP transition. By eliminating monopoly bottlenecks and increasing competitive alternatives, the rates to terminate traffic will decrease, which will thereby free up funds for investment in IP-based networks and interconnection.

For these reasons, the Carrier Coalition joins the chorus of stakeholders that have already voiced strong support for adoption of the Direct Connect Rule.¹¹

III. VoIP Symmetry

The Commission should also remove uncertainty surrounding the treatment of over-the-top Voice-over Internet Protocol traffic (“VoIP”) under 47 C.F.R. § 51.913(b), by granting CenturyLink’s Petition for Declaratory Ruling.¹² In particular, the Commission should find that over-the-top VoIP providers and their LEC partners perform the functional equivalent of end office switching and, thus, may assess and collect end office local switching access reciprocal

¹⁰ See *Public Safety and Homeland Security Bureau Seeks Comment on Improving Wireless Network Resiliency to Promote Coordination through Wireless Backhaul Providers*, PS Docket No. 11-60, Public Notice (rel. Dec. 10, 2018).

¹¹ See Reply Comments of Peerless Networks, Inc. and Affinity Network, Inc. d/b/a ANI Networks, WC Docket No. 18-155, at 3-4 (filed Aug. 3, 2018) (summarizing comments of AT&T, ITTA, and others voicing support for the Direct Connect Rule).

¹² See n.2 *supra*.

compensation for traffic that originates from or terminates to an end-user of over-the-top VoIP service.

Where a LEC partners with an over-the-top VoIP provider to deliver service to an end-user, the VoIP Symmetry Rule authorizes the LEC to assess and collect tariffed access charges for the functions performed by the LEC or its VoIP partner that are the “functional equivalent” of access service provided in a TDM environment.¹³ While AT&T and Verizon appear to be the only carriers disputing a LEC’s right to assess end office switching charges where it partners with an over-the-top VoIP provider to deliver service, these disputes fail on both factual and policy grounds.

As an initial matter, a LEC partnering with a VoIP provider to deliver service *does* perform the functional equivalent of end office switching. As CenturyLink’s Petition explains in detail, the unique function provided by an end office switch in the TDM environment is its role in call set-up and take-down; it is “the network element that initiates the initial treatment of a call, which is then passed on to a tandem or the SS7 network, as applicable, and holds ultimate responsibility for any sessions originating to or from the end user.”¹⁴ It is this function that distinguishes an end office switch from a tandem switch; while a tandem switch may also serve to send and receive traffic, a tandem switch *does not* perform these call set-up and take-down functions. No argument from AT&T or Verizon can change this.

In the over-the-top VoIP environment, the equivalent functionality of these core functions of the end office switch *are provided by the VoIP provider and the LEC*. The call set-up functions are provided through the VoIP application or device, which contacts the host server when the customer inputs the dialed digits of the called party. Once received by the host server, the server extracts the phone number, determines the most appropriate route, and – if destined for the PSTN – routes it to its LEC partner, which then performs the remaining switching functions. Each of these functions are replicated for traffic received from the PSTN and terminating to the VoIP customer.¹⁵

Notably, this conclusion is fully consistent with the D.C. Circuit’s decision in *AT&T Corp. v. FCC*,¹⁶ which merely held that the Commission’s *2015 Declaratory Ruling*¹⁷ did not sufficiently explain why these call control functions were unique to end office switches, as opposed to tandem

¹³ 47 C.F.R. § 51.913(b).

¹⁴ CenturyLink’s Petition for Declaratory Ruling, at 9-10.

¹⁵ *See id.*

¹⁶ 841 F.3d 1047 (D.C. Cir. 2016).

¹⁷ *Connect America Fund; Developing a Unified Intercarrier Compensation Regime*, Declaratory Ruling, 30 FCC Rcd 1587 (2015) (“*2015 Declaratory Ruling*”), *vacated and remanded sub nom AT&T Corp. v FCC*, 841 F.3rd 1047 (D.C. Cir. 2016).

switches or the SS7 network.¹⁸ However, as discussed, the record fully supports that LECs partnered with an over-the-top VoIP provider *do* provide the functional equivalent of end office switching by providing the unique, core functions provided by the end office switch in the TDM environment.

Moreover, the policy rationales underlying the VoIP Symmetry Rule reinforce this conclusion. The Commission clearly articulated that the VoIP Symmetry Rule intended to adopt: (1) a “symmetrical framework” for VoIP-PSTN traffic, to ensure against asymmetric payments that had previously been associated with VoIP traffic¹⁹ and (2) a technology-neutral approach, to ensure providers delivering services over IP networks were not put at a disadvantage.²⁰ Indeed, in adopting the VoIP Symmetry Rule, the Commission was very clear that it was “adopt[ing] rules that permit a LEC to charge the relevant intercarrier compensation for functions performed by it and/or by its retail VoIP partner, *regardless of whether the functions performed or the technology used correspond precisely to those used under a traditional TDM architecture.*”²¹ As CenturyLink explains, “[t]his is critical, because the calls for which LECs and their VoIP partners are assessing end office access switching charges in these [various] scenarios are the same kind of calls that LECs have always charged for—all that has changed is the technology.”²²

Accordingly, granting CenturyLink’s Petition will ensure carriers that have already invested in deploying IP-based services are not penalized vis-à-vis those that have not, such as Verizon and AT&T in many locations around the United States. Indeed, a contrary finding would undermine the significant investments made into IP-based services since adoption of the VoIP Symmetry Rule in 2011 and the expectations created following the Commission’s issuance of the 2015 Declaratory Ruling. Not only have these investments been important to many long-standing policy objectives, as noted above, ***but are also critical to addressing the Commission’s top priorities for “this year”***²³ – ***such as implementation of the SHAKEN/STIR framework to***

¹⁸ *AT&T*, 841 F.3d at 1049.

¹⁹ *see also Connect America Fund; A National Broadband Plan for Our Future, et al.*, WC Docket Nos. 10-90, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 942 (2011) (“*USF/CAF Transformation Order*”) (subsequent history omitted).

²⁰ *Id.* ¶¶ 969-70.

²¹ *Id.* ¶ 970 (emphasis added).

²² Letter from John T. Nakahata, Counsel for CenturyLink, to Marlene H. Dortch, FCC, WC Docket No. 10-90, CC Docket No. 01-92 (filed Nov. 28, 2018).

²³ *See, e.g., Chairman Pai: Caller Id Authentication is Necessary for American Consumers in 2019 – Many Phone Companies have Offered Encouraging Timelines for Rolling Out This Critical Service for Combating Spoofed Robocalls*, News Release (rel. Feb 13, 2019) (Chairman Pai stated that “American consumers are sick and tired of unwanted robocalls, this consumer among them. Caller ID authentication will be a significant step towards ending the scourge of spoofed robocalls. It’s time for carriers to implement robust caller ID authentication. Uniform adoption will help improve authentication throughout the network and make sure no consumer gets left behind. I

*eliminate unlawful spoofed robocalling, as this framework requires and could not be implemented on a carrier's network without full deployment and use of IP technology for voice traffic.*²⁴ Consistent with these policy objectives, the Commission should grant CenturyLink's Petition because doing so would reward (rather than penalize) those carriers that implemented the IP-network technology that the SHAKEN/STIR framework requires.

The Commission should therefore find, as both a matter of fact and sound policy, that the VoIP Symmetry Rule allows end office local switching access reciprocal compensation charges to be assessed where a LEC partners with an over-the-top VoIP provider to deliver service to the end-user.

Respectfully,

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applaud those companies that have committed to deploy the SHAKEN/STIR framework in 2019. **This goal should be achievable for every major wireless provider, interconnected VoIP operator, and telephone company—and I expect those lagging behind to make every effort to catch up. If it appears major carriers won't meet the deadline to get this done this year, the FCC will have to consider regulatory intervention,**") (emphasis added), *available at* <https://docs.fcc.gov/public/attachments/DOC-356187A1.pdf>.

²⁴ See e.g., Letter from Daniel McCarthy, Frontier Communications, to Chairman Ajit V. Pai, FCC, WC Docket No. 17-97, at 1 (filed Nov. 19, 2018) (stating that Time Division Multiplexing ("TDM") lines "are not compatible with SHAKEN/STIR"), *available at* <https://ecfsapi.fcc.gov/file/1119075962652/FTR%20SHAKEN%20letter%2011.19.18.pdf>; Comments of Sprint Corporation, CG Docket No. 17-97, at 2 (filed Sep. 13, 2018) ("Any TDM link in the call flow will eliminate the ability to authenticate the call").

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²⁵ MACC members joining this letter include Allstream and First Communications.